

What is Claimed Is:

1. A tape drive mechanism comprising:
a hub filler coupled to a guide rail; and
means for preventing detachment of an end of tape from the hub filler
during a tape unloading operation.
2. The tape drive mechanism of claim 1, wherein the means for
preventing detachment comprises:
a guide arm coupled to the hub filler; and
a guide arm motor coupled to the guide arm.
3. The tape drive mechanism of claim 2, wherein:
the guide arm and the guide arm motor are arranged to provide drag on
a tape being unloaded from the tape drive mechanism.
4. The tape drive mechanism of claim 3, wherein:
the guide arm and the guide arm motor are arranged to be dragged by a
tape being unloaded from the tape drive mechanism.
5. The tape drive mechanism of claim 4, wherein:
the guide arm motor under control of a controller is arranged to
provide tension on a tape by electrical induction within the guide arm motor.

6. The tape drive mechanism of claim 5, wherein the electrical induction, frictional resistance of the hub filler, and frictional resistance of the guide arm applies force to the hub filler in an opposite direction to a direction that the hub filler is traveling in the unloading operation.

7. The tape drive mechanism of claim 4, wherein the guide arm motor is arranged to provide tension by magnetic resistance within the guide arm motor.

8. The tape drive mechanism of claim 7, wherein the magnetic resistance of the guide arm motor, frictional resistance of the guide arm motor, frictional resistance of the hub filler, and frictional resistance of the guide arm apply force to the hub filler in an opposite direction to a direction that the hub filler is traveling in the unloading operation.

9. A tape drive mechanism comprising:

a hub filler coupled to a guide rail;

a guide arm coupled to the hub filler; and

a guide arm motor coupled to the guide arm, wherein the guide arm and the guide arm motor are arranged to provide drag on a tape and thereby prevent detachment of an end of the tape from the hub filler during movement of the hub filler along the guide rail during an unloading operation.

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10. The tape drive mechanism of claim 9, wherein the guide arm and the guide arm motor are arranged to provide drag on a tape being unloaded from the tape drive mechanism.

11. The tape drive mechanism of claim 10, wherein the guide arm and the guide arm motor are arranged to be dragged by a tape being unloaded from the tape drive mechanism.

12. The tape drive mechanism of claim 11, wherein the guide arm motor under control of a controller is arranged to provide tension by stimulated electrical induction within the guide arm motor.

13. The tape drive mechanism of claim 12, wherein the electrical induction, frictional resistance of the hub filler, and the frictional resistance of the guide arm applies torque to the hub filler in the opposite direction to a direction that the hub filler is traveling in the unloading operation.

14. The tape drive mechanism of claim 11, wherein the guide arm motor is arranged to provide tension by magnetic resistance within the guide arm motor.

15. The tape drive mechanism of claim 14, wherein the magnetic resistance of the guide arm motor, frictional resistance of the guide arm motor, frictional resistance of the hub filler, and frictional resistance of the guide arm

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apply force to the hub filler in an opposite direction to a direction that the hub filler is traveling in the unloading operation.

16. A method of preventing detachment of an end of tape from a hub filler during movement of the hub filler along the guide rail during an unloading operation, comprising the steps of:

driving an end of tape with a tape cartridge motor in a direction away from a tape-up reel; and

applying tension to an end of tape in a direction toward the take-up reel.

17. The method of claim 16, wherein:

the step of providing tension comprises the further steps of:

providing tension through a guide arm coupled to the hub filler;
and

providing tension through a guide arm motor coupled to the guide arm.

18. The method of claim 17, wherein the step of providing tension through a guide arm motor comprises the further step of providing tension in the guide arm motor through electrical induction within the guide arm motor.

19. The method of claim 17, wherein the step of providing tension through a guide arm motor comprises the further step of providing tension in the guide arm motor through magnetic resistance within the guide arm motor.

20. The method of claim 17, wherein the step of providing tension through a guide arm comprises the further step of providing tension in the guide arm through frictional resistance of the guide arm.

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